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10/629,948	07/30/2003	Ulrich Botzel	L&L-I0044	8888

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2416	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

		Application No.	Applicant(s)
Office Action Summary		10/629,948	BOTZEL ET AL.
		Examiner	Art Unit
		Sai-Ming Chan	2416

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>8/29/2008</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-3,5-13,15-23 and 25-32</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-3,5-13,15-23 and 25-32</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1.   Determining the scope and contents of the prior art.

2.   Ascertaining the differences between the prior art and the claims at issue.

3.   Resolving the level of ordinary skill in the pertinent art.

4.   Considering objective evidence present in the application indicating

obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of

the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g)

prior art under 35 U.S.C. 103(a).

Claims 1-2, 5-12, 15-22 and 25-31 are rejected under 35 U.S.C. 103(a) as being

unpatentable over **Scott (U.S. Patent # 6388997),** in view of **Logalbo et al. (U.S.**

Patent # 6928065).

Consider **claims 1, 11, 21 and 31**, Scott clearly discloses and shows a data

transmission system, comprising:

a base station (fig. 3a (304)) and at least two mobile stations (fig. 3a (302 (2

users stations)) for interchanging data bursts successively by radio (fig. 8 (transmitter

and receiver for radio operation); column 6, lines 6-7) using a time slot method

(abstract, lines 5-7; fig. 5a (510 & 511));

a transmitter (fig. 8A (807 transmitter); column 6, lines 6-7) of said base station

being configured to transmit first data bursts (fig. 5c (571 – base station burst)) to said

mobile stations;

each of said mobile stations having a transmitter (fig. 9 (907 transmitter); column 6, lines 11-12) configured to transmit a group of second data bursts (fig. 5c (572 -mobile bursts)) containing a data block intended for said base station (fig. 5c (575s); column 21, lines 38-46); and

said first data burst and groups of the second data bursts being transmitted alternately (column 4, lines 64-67, column 5, lines 1-6 (alternate between base and user)); and

a device for producing a guard time interval (base station (fig. 8a (811);column 17, lines 1-9); mobile station (fig.9 (911); column 19, lines 7-15) between the data bursts, and

However, Scott does not specifically disclose identification information for said piconetwork only at a start of a transmission of each of the first data bursts, and at least some of the first data bursts containing at least two data blocks intended for different ones of said mobile stations ;

In the same field of endeavor, Logalbo clearly shows identification information (fig. 2, col. 3, lines col. 3, lines 49-52 (a single header precedes a group of messages)) for said piconetwork (col. 2, lines 39-44; Examiner notes that the infrastructure can be picotnetwork) only at a start of a transmission of each of the first data bursts (fig. 2, col. 3, lines col. 3, lines 49-52 (a single header precedes a group of messages)), and at least some of the first data bursts containing at least two data blocks (fig. 2, col. 3, lines col. 3, lines 49-52 (a single header precedes a group of messages)) intended for

different ones of said mobile stations (col.1, lines 14-16 (signaling a plurality of subscriber units in a single slot)).

Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to demonstrate a data transmission system, as taught by Scott, and show piconetwork identification information and data bursts containing at least two data blocks, as taught by Logalbo, so that a plurality of subscribers can be signaled in one slot (col. 1, lines 15-17).

Consider **claim 2**, and **as applied to claim 1 above**, Scott, as modified by Muller, clearly discloses and shows the data transmission system, wherein said base station and each of said mobile stations have a local oscillator (fig. 18 (1821); column 52, lines 54-58).

Consider **claim 5**, and **as applied to claim 1 above**, Scott, as modified by Muller, clearly discloses and shows the data transmission, wherein at least one of: the first data burst and a subsequent one of the groups of the second data bursts are at different transmission frequencies (column 5, lines 7-10), and one of the groups of the second data bursts and a subsequent one of the first data bursts are at different transmission frequencies (column 5, lines 7-10).

Consider **claim 6**, and **as applied to claim 5 above**, Scott, as modified by

Muller, clearly discloses and shows the data transmission system, wherein one of the

transmission frequency of the first data burst and the group of the second data bursts is

constant during a transmission (column 5, lines 7-10 (frequency band is constant for

data bursts).

Consider **claim 7**, and **as applied to claim 1 above**, Scott, as modified by

Muller, clearly discloses and shows the data transmission system, wherein the guard

time interval between one of the first data bursts and a subsequent one of the second

data bursts is equal to the guard time interval between the one of the second data

bursts and the subsequent one of the first data bursts (column 4, lines 37-47 (a single

collective guard time)).

Consider **claim 8**, and **as applied to claim 1 above**, Scott, as modified by

Muller, clearly discloses and shows the data transmission system, wherein the guard

time intervals between successive second data bursts have equal lengths (fig. 5 (573);

column 21, lines 38-46).

Consider **claim 9**, and **as applied to claim 1 above**, Scott, as modified by

Muller, clearly discloses and shows the data transmission system, wherein:

the first data bursts contain at least two data blocks, with one data block being provided

for each of said mobile stations (fig. 5c (578 has 16 mobile messages); column 20, lines

33-67, column 21, lines 7), and

a second data burst from each of said mobile stations is in each case provided in the

group of the second data bursts (fig. 5c (each mobile burst in 572 is represented by

575); column 21, lines 38-46)).

Consider **claim 10**, and **as applied to claim 1 above**, Scott, as modified by

Muller, clearly discloses and shows the data transmission system, wherein said data

transmission system can be used in a system with real-time requirements selected from

the group consisting of a cordless communication system, and a computer-controlled

entertainment system, a computer-controlled game system (column 49, lines 23-24,

lines 31-35).

Consider **claim 12**, and **as applied to claim 11 above**, Scott, as modified by

Muller, clearly discloses and shows the frame structure, wherein said base station and

each of said mobile stations have a local oscillator (fig. 18 (1821); column 52, lines 54-

58).

Consider **claim 15**, and **as applied to claim 11 above**, Scott, as modified by Muller, clearly discloses and shows the frame structure, wherein at least one of: the first data burst and a subsequent one of the groups of the second data bursts are at different transmission frequencies (column 5, lines 7-10), and a group of the second data bursts and a subsequent one of the first data bursts are at different transmission frequencies (column 5, lines 7-10).

Consider **claim 16**, and **as applied to claim 15 above**, Scott, as modified by Muller, clearly discloses and shows the frame structure, wherein one of the transmission frequency of the first data burst and the group of the second data bursts is constant during a transmission (column 5, lines 7-10 (frequency band is constant for data bursts).

Consider **claim 17**, and **as applied to claim 11 above**, Scott, as modified by Muller, clearly discloses and shows the frame structure, wherein the guard time interval between one of the first data bursts and a subsequent one of the second data bursts equals a guard time interval between said second data bursts and subsequent first data bursts (column 4, lines 37-47 (a single collective guard time)).

Consider **claim 18**, and **as applied to claim 11 above**, Scott, as modified by

Muller, clearly discloses and shows the frame structure, wherein the guard time

intervals between successive second data bursts have equal lengths (fig. 5 (573);

column 21, lines 38-46).

Consider **claim 19**, and **as applied to claim 11 above**, Scott, as modified by

Muller, clearly discloses and shows the frame structure, wherein:

the first data bursts contain two data blocks, with one data block being provided for

each of said mobile stations (fig. 5c (578 has 16 mobile messages); column 20, lines

33-67, column 21, lines 7), and

said second data burst include a data burst from each of said mobile stations (fig. 5c

(each mobile burst in 572 is represented by 575); column 21, lines 38-46)).

Consider **claim 20**, and **as applied to claim 11 above**, Scott, as modified by

Muller, clearly discloses and shows the frame structure, wherein said data transmission

system can be used in a system having a real-time requirements selected from the

group consisting of a cordless communication system, and a computer-controlled

entertainment system, a computer-controlled game system (column 49, lines 23-24,

lines 31-35).

Consider **claim 22**, and **as applied to claim 21 above**, Scott, as modified by

Muller, clearly discloses and shows the method, which further comprises transmitting

and receiving data bursts with the base station and each of the mobile stations by using

respective local oscillators (fig. 18 (1821); column 52, lines 54-58).

Consider **claim 25**, and **as applied to claim 23 above**, Scott, as modified by

Muller, clearly discloses and shows the method, wherein at least one of:

the first data burst and a subsequent group of the second data bursts are at different

transmission frequencies (column 5, lines 7-10); and

a group of the second data bursts and a subsequent first data burst are at different

transmission frequencies(column 5, lines 7-10) .

Consider **claim 26**, and **as applied to claim 25 above**, Scott, as modified by

Muller, clearly discloses and shows the method, which further comprises keeping the

transmission frequency constant during one of a transmission of the first data burst and

a transmission of the group of the second data bursts (column 5, lines 7-10 (frequency

band is constant for data bursts).

Consider **claim 27**, and **as applied to claim 21 above**, Scott, as modified by
Muller, clearly discloses and shows the method, wherein:

the guard time interval is between the first data burst and a subsequent one of the
second data bursts (fig. 5a (503) collective guard time)), and

the guard time interval has an equivalent length as between one of the second data
bursts and a subsequent first data burst (column 4, lines 37-47 (single collective guard
time)).

Consider **claim 28**, and **as applied to claim 21 above**, Scott, as modified by
Muller, clearly discloses and shows the method, which further comprises providing
guard time intervals of an equivalent length between successive second data bursts (fig.
5 (573); column 21, lines 38-46).

Consider **claim 29**, and **as applied to claim 21 above**, Scott, as modified by
Muller, clearly discloses and shows the method, which further comprises:

in the first data bursts, providing at least two data blocks, one of the data blocks being
provided for each of the mobile stations (fig. 5c (578 has 16 mobile messages); column
20, lines 33-67, column 21, lines 7) ; and

providing a second data burst from each of the mobile stations in each of the group of

second data bursts (fig. 5c (each mobile burst in 572 is represented by 575); column 21,

lines 38-46)).

Consider **claim 30**, and **as applied to claim 21 above**, Scott, as modified by

Muller, clearly discloses and shows the method, which further comprises using the

method in a system with real-time requirements selected from the group consisting of a

cordless communication systems, a computer-controlled entertainment system, and a

computer-controlled games system (column 49, lines 23-24, lines 31-35).

Consider **claim 32**, and **as applied to claim 1 above**, Scott clearly discloses

and shows the system as described. Examiner notes that the first data burst and groups

of the second data bursts being transmitted alternately (column 4, lines 64-67, column

5, lines 1-6 (alternate between base and user));

However, Scott does not specifically disclose the time slot of one of the first data

bursts corresponds to an integer multiple N of the time slot of one of the second data

bursts, N being equal to the number of mobile stations.

In the same field of endeavor, Logalbo clearly shows the time slot of one of the

first data bursts (fig. 1(first in 100 (outbound transmission)) corresponds to an integer

multiple N (fig. 1 (first in 102 (inbound transmission)) of the time slot of one of the

second data bursts (fig. 1 (first in 102 (inbound transmission)), N being equal to the

number of mobile stations (fig. 2, col. 3, lines 24-29 (six in this example but not limit to

such)).

Therefore it would have been obvious to a person of ordinary skill in the art at the

time the invention was made to demonstrate a data transmission system, as taught by

Scott, and show piconetwork identification information and data bursts containing at

least two data blocks, as taught by Logalbo, so that a plurality of subscribers can be

signaled in one slot (col. 1, lines 15-17).

Claims 3, 13 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable

over **Scott (U.S. Patent # 6388997)**, in view of **Logalbo et al. (U.S. Patent # 6928065)**,

and in view of **Ozluturk (U.S. Patent Publication #20020141478).**

Consider **claim 3**, and **as applied to claim 1 above**,

   claim 13, and **as applied to claim 12 above**,

   claim 23, and **as applied to claim 22 above**,

Scott clearly discloses and shows the data transmission system, wherein said base

station and each of said mobile stations have a local oscillator (fig. 18 (1821); column

52, lines 54-58).

However, Scott does not specifically disclose that the oscillator with PPL.

In the same field of endeavor, Ozluturk et al., clearly shows base station and

mobile station (paragraph 16 (SU (subscriber unit) contains CDMA modems for

transmission and receiving signals is used by base and mobile station)) has a local

oscillator (paragraph 461(SU is slave to oscillator)) which is connected to a respective

PPL (paragraph 461(SU is connected to a PPL oscillator circuit)).

Therefore it would have been obvious to a person of ordinary skill in the art at the

time the invention was made to incorporate data transmission system, as taught by

Scott, and identify the PPL oscillator, as taught by Ozluturk et al., so that timing is

synchronized.

Response to Arguments

Applicant's arguments filed on 1/4/2008, with respect to claims 1, 11, 21 and 33,

on page 16 -29 of the remarks, have been fully considered.

In the present application, Applicants basically argue, that Scot et al. do not

teach or suggest "identification information at the start of the transmission for each

burst" and "two data blocks each intended for a different one of the mobile stations".

The Examiner has modified the response with a new reference which combines with

Scott to provide "identification information at the start of the transmission for each burst"

and "two data blocks each intended for a different one of the mobile stations". See the

above rejections of claims 1, 11, 21 and 33, for the relevant interpretation and citations

found in Logalbo et al., disclosing the limitation.

Conclusion

Any response to this Office Action should be **faxed to** (571) 273-8300 **or mailed**

to:

        Commissioner for Patents
        P.O. Box 1450
        Alexandria, VA 22313-1450

Hand-delivered responses should be brought to

        Customer Service Window
        Randolph Building
        401 Dulany Street
        Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the

Examiner should be directed to Sai-Ming Chan whose telephone number is (571) 270-

1769. The Examiner can normally be reached on Monday-Thursday from 6:30am to

5:00pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's

supervisor, Seema Rao can be reached on (571) 272-3174. The fax phone number for

the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for published

applications may be obtained from either Private PAIR or Public PAIR. Status

information for unpublished applications is available through Private PAIR only. For

more information about the PAIR system, see http://pair-direct.uspto.gov. Should you

have questions on access to the Private PAIR system, contact the Electronic Business

Center (EBC) at 866-217-9197 (toll-free) or 571-272-4100.

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the receptionist/customer service whose telephone

number is (571) 272-2600.

/Sai-Ming Chan/

Examiner, Art Unit 2416

November 26, 2008

/Kevin C. Harper/

Primary Examiner, Art Unit 2416